

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 09008770  
PUBLICATION DATE : 10-01-97

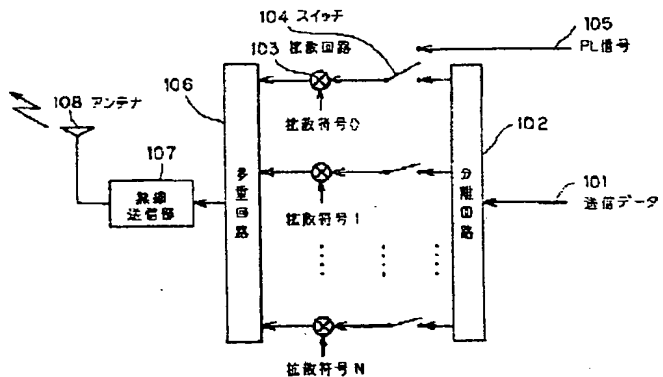
APPLICATION DATE : 22-06-95  
APPLICATION NUMBER : 07155855

APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : MIYA KAZUYUKI;

INT.CL. : H04J 13/04 H04L 7/00

TITLE : CDMA RADIO MULTIPLEX SENDER  
AND CDMA RADIO MULTIPLEX  
TRANSMITTER



ABSTRACT : PURPOSE: To improve the reliability of a pilot symbol and to improve synchronizing detection performance by providing a means for interpolating the pilot symbol only to one channel among channels to be multiplexed and transmitting it on the transmission side, and providing a means for estimating the state of a line from the received pilot symbol on the reception side.

CONSTITUTION: A pilot symbol (PL signal) 105 is inserted to the channel having a spread code '0' in each cycle by a switch 104. The multiplexed signal is modulated by a radio transmission part 107, and up-converted to a transmission frequency and transmitted from an antenna 108 later. On the reception side, the signal received by an antenna is down converted by a radio reception part, demodulated and inversely spread by an inverse spread circuit while using respective spread codes later. The PL signal is extracted from the signal inversely spread by a spread code '0' through the switch and based on that information, the transfer function of the line is estimated by a line state maintenance circuit.

COPYRIGHT: (C)1997,JPO

BEST AVAILABLE COPY